Proposal Full View

Print

Applicant Information

Organization Name	Solano County Water Agency *
Tax ID	**680197823**
Proposal Name	Sacramento Valley Basin/Solano Subbasin Groundwater-Surface Water Flow Model to Evaluate Recharge & Conjunctive Water Use *
Proposal Objective	Through the development of the groundwater – surface water flow model, consider the potential effects of conjunctive water use scenarios on stakeholders and the environment in the greater Solano area. Evaluate the effects of pumpage with the goal of reducing drawdown and potential subsidence. *

Budget

Other Contribution	$0.00
Local Contribution	$0.00
Federal Contribution	$0.00
Inkind Contribution	$0.00
Amount Requested	$249,580.00 *
Total Project Cost	$249,580.00 *

Geographic Information

Latitude *	DD(+/-) 38	MM 21	SS 0			
Longitude *	DD(+/-) 121	MM 49	SS 59			
Longitude/Latitude Clarification				Location	See attached map in Attachment 5 (2 of 2)	
County				Solano *		
Ground Water Basin				Sacramento Valley-Solano,Sacramento Valley-South American,Sacramento Valley-Yolo		
Hydrologic Region				Sacramento River		
Watershed	71_ 5511 Valley Putah Creek, 70_5510 Sacramento Delta, 88_5560 Upper Elmira					

Legislative Information

Assembly District	8th Assembly District *
Senate District	3rd Senate District *
US Congressional District	District 3 (CA),District 7 (CA),District 10 (CA) *

Project Information

Project Name: Sacramento Valley Basin/Solano Subbasin Groundwater-Surface V

Implementing Organization	Solano County Water Agency
Secondary Implementing Organization	
Proposed Start Date	4/1/2013
Proposed End Date	4/1/2015
Project Scope	Develop and utilize an integrated GS/SW numerical flow model (GSFLOW) to simulate SW & GW movement in the Solano County area
Project Description	The Integrated Regional Water Management Plan (IRWMP, 2005) prepared by Solano County Water Agency on behalf of itself and its member agencies, including all the agencies overlying the Solano Subbasin identifies “Increased Use of Groundwater” and “Increase Opportunities for Conjunctive Use” as the highest priorities. Entities within the county that rely on groundwater for all or a portion of their supply include the cities of Vacaville, Rio Vista, and Dixon and water districts such as Rural North Vacaville Water District and Solano Irrigation District. Additional groundwater development is planned in other areas as a means of increasing water supply availability and reliability. Tasks include: 1)GSFLOW Model Development and Calibration, 2)Conjunctive Use Simulations, 3)Pumpage Distribution Simulations, 4)Evaluation of Recharge and Interconnectivity to Lower Freshwater Aquifer Zones used for supply, 5) Examining the implications of lowered gw levels and potential subsidence, 6) Determining the groundwater budget for the complex aquifer system in the Greater Solano Area, and 7)Documentation and reporting.
	1)Consider potential effects of conjunctive water use scenarios on stakeholders in the greater Solano area and significant surface water courses in the model area,

Project Objective	including the Sacramento River, 2)Quantify the potential for streamflow depletion in response to conjunctive use of GW in the model area, 3)Evaluate the effects of developing new and/or redistributing deep pumpage either horizontally over a spatial area or vertically over different aquifer units with the goal of reducing drawdown.

Project Benefits Information

Project Benefit Type	Benefit Type	Measurement	Description
Primary	Modeling-Groundwater modeling developed or improved	0	Develop groundwater-surface water flow model; tool to optimize conjunctive use and groundwater management.
Secondary	Other-Groundwater Studies	0	Develop groundwater-surface water flow model; tool to optimize conjunctive use and groundwater management.
Secondary	Modeling-Simulations performed	0	Use model to simulate groundwater-surface water interaction and potential pumping impacts on surface water
Secondary	Modeling-Data bases developed for modeling	0	During groundwater-surface water flow model development, expand hydrogeologic database for Solano County area.

Project Objective

Budget

Other Contribution	0
Local Contribution	0
Federal Contribution	0
Inkind Contribution	0
Amount Requested	249580
Total Project Cost	249580

Geographic Information

Latitude DD(+/-)	38	MM 21	SS 0		
Longitude DD(+/-)	121	MM 49	SS 59		
Longitude/Latitude Clarification		Location	See map in Attachment		

County Solano Ground Water Basin Sacramento Valley-Solano,Sacramento Valley-South American,Sacramento Valley-Yolo Hydrologic Region Sacramento River WaterShed 71_ 5511 Valley Putah Creek, 70_5510 Sacramento Delta, 88_5560 Upper Elmira

Legislative Information

Assembly District	8th Assembly District
Senate District	3rd Senate District
US Congressional District	District 3 (CA),District 7 (CA),District 10 (CA)

Section : Applicant Information and Question's Tab

APPLICANT INFORMATION AND QUESTION'S TAB

Q1. Applicant Information

Provide the agency name, address, city, state, and zip code of the applicant submitting the application.

Solano County Water Agency 810 Vaca Valley Parkway, Vacaville, CA 95688

Q2. Proposal Description:

Provide a brief abstract of the Proposal. This abstract must provide an overview of the proposal including the main issues and priorities addressed in the proposal. Within the abstract, please describe how the proposal relates to the GWMP's BMO's.

In 2005, SCWA prepared an Integrated Regional Water Management Plan (IRWMP) on behalf of itself and its member agencies, including all the agencies overlying the Solano Subbasin. The IRWMP identified "Increased Use of Groundwater" and "Increase Opportunities for Conjunctive Use" as Tier 1 (the highest) priorities. Entities within the county that rely on groundwater for all or a portion of their supply include the cities of Vacaville, Rio Vista, and Dixon and water districts such as Rural North Vacaville Water District (RNVWD) and Solano Irrigation District (SID). Additional groundwater development is planned in other areas as a means of increasing water supply availability and reliability. The IRWMP recognizes that groundwater in Solano County is underutilized; however, more information is needed to determine where and to what extent greater utilization is possible. Correspondingly, additional information and analyses are required to evaluate the availability of groundwater in conjunction with surface water to meet future water requirements. One of the key objectives of this project, through the development of the groundwater-surface water flow model, is to consider the potential effects of conjunctive water use scenarios on stakeholders and the environment in the greater Solano area, including the

Sacramento River and other significant surface water courses in the model area. Agencies such as DWR and the USBR would be especially interested in the quantification of the potential for streamflow depletion of such surface water courses in response to conjunctive use of groundwater in the model area. Another objective of this project is to evaluate the effects of developing new and/or redistributing deep pumpage either horizontally over a spatial area or vertically over different aquifer units with the goal of reducing drawdowns in the basal zone. This task directly relates to improving the understanding of the relationship between pumping effects and maintaining desired groundwater levels (i.e., levels that do not show continued decline and/or would not contribute to significant inelastic subsidence) by focusing on the basal zone of the Tehama Formation as an important aquifer unit for public water supply (existing and for potential future development). The project will satisfy these BMOs and other objectives related to groundwater resource management by: 1)Simulating the results of conjunctive use activities such as increased groundwater pumping (upper and lower portions of the aquifer system) during dry years and reduced pumping during wet years; 2)Simulating the effects of redistributing pumpage either horizontally or vertically to reduce drawdowns in the basal aquifer zone of the Tehama Formation; 3)Examining recharge and interconnectivity to the lower freshwater bearing zones; 4)Examining the implications of lowered groundwater levels and potential subsidence; 5)Determining the groundwater budget for the complex aquifer system such as exists in the greater Solano area; 6)Addressing questions concerning long-term reliability of supply from the deeper freshwater-bearing units in the northern Solano County area; and 7)Examining whether pumping from planned conjunctive use activities have an effect on surface water flows (i.e., streamflow depletion in the Sacramento River).

Q3. Project Director:

Provide the name and details (including email) of the person responsible for executing the grant agreement for the applicant. Persons that are subcontractors to be paid by the grant cannot be listed as the Project Director.

David Okita Solano County Water Agency General Manager 810 Vaca Valley Parkway, Vacaville, CA 95688 707 455-1103 dokita@scwa2.com

Q4. Project Manager:

Provide the name and contact information (including email) of the Project Manager from the applicant agency or organization that will be the day-to-day contact on this application.

Chris Lee Principal Water Resources Specialist Director of Env. Compliance, Permitting, and Habitat Conservation Solano County Water Agency 810 Vaca Valley Parkway, Vacaville, CA 95688 707.455.1105 Cell 707.249.1966 Fax 707.451.6099 clee@scwa2.com

Q5. Additional Information:

Based on the region's location, what is the applicable DWR region office (Northern, North Central, South Central, or Southern)? The following link can be used to view each DWR region office boundaries:

http://www.water.ca.gov/groundwater/groundwater_basics/gw_contacts_info.cfm

1) ☐ Northern Region
2) ☑ North Central Region
3) ☐ South Central Region
4) ☐ Southern Region

Q6. Additional Information:

Provide the Date of GWMP Adoption, if any, and list the pursuant Water Code Section or other legal Authority in which it was adopted.

Reclamation District No. 2068 - December 8, 2005; City of Vacaville - February 14, 1995, and updated to meet SB 1938 requirements in February 2011; Solano Irrigation District- January 16, 2006; Maine Prairie Water District - January 21, 1997. All plans in accordance with Water Code 10750 et seq. MPWD does not pump groundwater, so they have not updated their GWMP to SB 1938 standards.

Q7. Additional Information:

Provide a list of documents that support and indicate collaboration with other local public agencies with regard to the management of the affected groundwater basin (e.g., MOUs, MOAs, JPAs, adoption of a GWMP, recognition of county ordinances in permitting processes, or party to a groundwater basin adjudication order).

Four local agencies, including the City of Vacaville, SID, MPWD, and RD 2068, each adopted groundwater management plans prior to the 2003 California Water Code amendments. In 2004 and 2005, SCWA facilitated a coordinated effort among these agencies directed toward updates of these plans such that the plans would comply with the amended CWC and also to accomplish consistency among the plans to achieve basin management objectives. See also Attachment 3 for more information on Groundwater Management Plans and updates. An Integrated Regional Water Management Plan (IRWMP) was prepared in 2005 (Solano Agencies, 2005) for the Solano agencies, including SCWA and its member entities, that identifies and prioritizes all water related actions for these Solano County agencies. Among the highest priorities noted in the IRWMP are conjunctive water resources management and groundwater management. The City and other SWA-4 entities have actively participated in steps to implement the IRWMP. Westside IRWMP SCWA and its member entities, along with Lake County Watershed Protection District (Lake County WPD), Napa County Flood Control and Water Conservation District (Napa County FC&WCD), Water Resources Association of Yolo County (WRA of Yolo County) and Colusa County Resource Conservation District (Colusa County RCD), are now jointly involved in new efforts for the Westside Integrated Regional Water Management Plan development (2012). The Westside Regional Water Management Group (RWMG), which received Proposition 84 Grant Funds on October 6, 2011, is developing a Westside IRWMP that will serve as the planning document for all regional water projects in the Putah or Cache Creek watersheds. Useful planning information already included in adopted IRWMPs, such as the Yolo County IRWMP, Solano Agencies IRWMP, and Sacramento Valley IRWMP will be utilized to create the Westside IRWMP. Significant water management issues to be covered in the IRWMP include water rights and diversions, groundwater quantity and quality, general water quality issues, and specific water management issues dealing with invasive species and mercury contamination. Specific actions are planned to be included to solicit and facilitate the participation of the Disadvantaged Communities in the planning process. Related Documents Include: Solano Agencies. 2005. Integrated Regional Water Management Plan and Strategic Plan. Elmira, CA. Posted at Solano Agencies IRWMP (2005) www.scwa2.com/UWMP_IRWMP.aspx Web site for Westside IRWMP (IRWMP in development) http://westsideirwm.com/documents/

Q8. Additional Information

Name the entity(ies) providing the fund(s) reported in the above Budget section under the category "Other Contribution". If there are no "Other Contributions" Please answer this question with, "No Other Contributions".

No Other Contributions.

Q9. Eligibility:

List the urban water suppliers that will receive funding from the proposed grant. Please provide the agency name, a contact phone number and email address. Those listed must submit self certification of compliance with CWC §525 et seq. and AB1420, see Attachment 10. If there are none, so indicate.

Not Applicable.

Q10. Eligibility:

Have all of the urban water suppliers, listed in Q9 above, submitted complete 2010 UWMP to DWR? If not, explain why. Have those plans been verified as complete by DWR? If not, explain current status.

Not Applicable.

Q11. Completeness Check:

Have all of the fields in the application been completed?

Yes

Q.11. Completeness Check (cont)

If no, please explain. If yes, answer this question with "NA".

NA

Section : Application Attachments Tab

APPLICATION ATTACHMENTS TAB

Attachment 1. Authorizing Documentation

Upload authorizing documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".
Last Uploaded Attachments: Att1_LGA12_SCWA_AuthDoc_1of1.pdf

Attachment 2. Eligible Applicant Documentation

Upload eligible documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".

Last Uploaded Attachments: Att2_LGA12_SCWA_EligDoc_1of1.pdf

Attachment 3. Status of GWMP

Upload the GWMP documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".
Last Uploaded Attachments:
Att3_LGA12_SCWA_GWMP_1of5.pdf,Att3_LGA12_SCWA_GWMP_2of5.pdf,Att3_LGA12_SCWA_GWMP_3of5_WDs.pdf,Att3_LGA12_SCWA_GWMP_4of5.pdf,Att

Attachment 4. Project Description

Upload project description here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".
Last Uploaded Attachments: Att4_LGA12_SCWA_ProjD_1of1.pdf

Attachment 5. Work Plan

Upload work plan here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".
Last Uploaded Attachments: Att5_LGA12_SCWA_WrkPln_1of2.pdf,Att5_LGA12_SCWA_WrkPln_2of2.pdf

Attachment 6. Budget

Upload budget here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".
Last Uploaded Attachments: Att6_LGA12_SCWA_Budget_1of2.pdf,Att6_LGA12_SCWA_Budget_2of2.pdf

Attachment 7. Schedule

Upload schedule here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".
Last Uploaded Attachments: Att7_LGA12_SCWA_Sched_1of1.pdf

Attachment 8. Quality Assurance

Upload quality assurance documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".
Last Uploaded Attachments: Att8_LGA12_SCWA_QA_1of1.pdf

Attachemnt 9. Past Performance

Upload past performance documentation here. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Submit An Application".
Last Uploaded Attachments: Att9_LGA12_SCWA_Perform1of2.pdf,Att9_LGA12_SCWA_Perform2of2.pdf

Attachment 10. AB1420 and Water Meter Implementation Compliance

Upload 1420 and water meter implementation documentation here, if applicable. Ensure file name is consistent with the LGA Grant PSP, Section II. "How to Subm